# **Annual Environmental Report**

## **Built on Green Principles**

Destiny USA operates under a set of Green Principles which guides the projects' decision making using a green "filter" to help us achieve new standards of energy innovation and environmental excel-



lence. With this framework, Destiny USA began the journey to meet a number of green goals that will have significant positive environmental impacts.

All Destiny USA team members are knowledgeable green ambassadors, building awareness and inspiring customers, suppliers, and partners to build a healthier, more secure world. We take a holistic view of how we affect the environment, asking where things come from, what they are made of, and how they might be reused or recycled.





We provide a living model of sustainable, fossil-fuel free living, stimulating change locally, regionally, and globally.

We encourage and help other companies and partners engaged in the Destiny USA initiative, to share and incorporate our green initiatives and principles.

Destiny USA is committed to developing innovative, sustainable





solutions in the construction and consumer market sectors enabled by the use of technology. In that light Destiny USA serves as a living laboratory for the testing and commercialization of new ideas and products.

Green is a journey, not a destination. We use measurement and competition to continually innovate and improve environmental performance.

### Fly Ash: Eco-Friendly at Destiny USA

Destiny USA is using Fly Ash, a byproduct of coal-fired power plants, to make environmentally friendly concrete at the first phase of Destiny USA.

To date, Destiny USA has used 2,478 tons of Fly Ash for foundations, sidewalks, elevator shafts,

slab-on-grade, and pile caps; and 5,327.61 tons of bottom ash for light- weight fill. To put Destiny's exemplary efforts into perspective, the average Wal-Mart uses 926 tons of 10%-15% fly ash during construction. Imagine the impact if all future Wal-

marts bumped their formula to 30% fly ash.

Fly Ash, and Bottom Ash, are byproducts of coal fired plants which are normally disposed of in landfills; they are environmentally friendly substitutes for Portland cement—a resource which re-

(continued on page 2)

Replacing a ton of Portland cement with Fly Ash saves enough energy to power the average home for 24 days



### Fly Ash Cont'

quires an extremely energy intensive production process. For every ton of Portland cement that is produced about 6.4 million BTU's of energy is consumed.

Replacing a ton of Portland cement with Fly Ash saves enough energy to power the average home for 24 days and reduces carbon dioxide emissions equal to those produced by an automobile in 2 months.

Because of Destiny USA's work to find ways to conserve natural resources through waste reduction, the United States Environmental Protection Agency (EPA) has inducted Destiny USA into the Coal Combustion Products Partnership ( $C^2P^2$ ).

Through the  $C^2P^2$  program, the EPA and Destiny USA will work with all levels of government, as well as industry organizations, to reduce or eliminate legal, institutional, economic, market, informational, and other barriers to the beneficial use of Coal Combustion Products (CCPs).

Specifically, C<sup>2</sup>P<sup>2</sup> has goals to reduce adverse effects on air and land by increasing the use of coal combustion products to 50 percent in 2011 from 31 percent in 2001, increase the use of CCPs as a supplementary cementations material (SCM) in concrete by 50 percent, from 12.4 million tons in 2001 to 18.6 million tons in 2011, thereby decreasing greenhouse gas emissions from avoided cement manufacturing by approximately 5 million tons

The C<sup>2</sup>P<sup>2</sup> program aims to accomplish these goals by working with partners and with organizations to increase the beneficial use of CCPs, undertaking activities such as developing booklets for distribution, publishing case studies, and writing new policies to increase the beneficial use of CCPs. The EPA utilizes workshops and its co-sponsors also offer workshops on the beneficial use of CCPs.





### **LEED—ING the Way**

Destiny USA is committed to pursuing LEED Platinum level certification, which represents the pinnacle of green building practice. Leadership in Energy Environmental Design (LEED) was developed by the United States Green Building Council (USGBC) and is the nationally recognized benchmark for design, construction, and operation of high performance green buildings. LEED gives building owners and operators the

tools they need to have an immediate and measurable impact on their buildings' performance. Upon successful completion of its LEED goals, Destiny USA will be the largest certified complex of its kind in the country. LEED promotes a whole-building approach to sustainability by recognizing performance in five key areas of human and environmental health: sustainable site development, water savings, energy efficiency, materials selection and indoor environmental quality.

Destiny USA meets regularly with the project architects, engineers and contractors to collaborate in meeting Destiny's green building goals.



### Miles of 95% Recycled Pile

The Nucor-Yamato Steel Company located in Auburn, New York, manufactures the structural steel being used on the Destiny USA site, Buffalo Structural Steel is the supplier and it's being installed by Contour Steel.

Their products use the electric arc furnace process that uses ferrous scrap (recycled steel) as the primary feedstock. In order to meet their production goals each year, Nucor-Yamato recycles/consumes approximately 2.5 million tons of steel.

Over 95% of the electric arc furnace charge consists of various

types of recycled steel—over 80% is post-consumer and over 15% is pre-consumer (Nucor Steel www.nucor.com).

The David Joseph Company provides almost all of the ferrous scrap consumed by Nucor-Yamato Steel Company. In 2007, about 1,582,390 tons of ferrous scrap was used by Nucor-Yamato from within a 500 mile radius of their facility which falls directly in line with Destiny USA's regional resource and purchasing initiative.

Within the 1st Phase, the Destiny USA project will erect approxi-

mately 7,500 tons of steel including beams, girders, joists, tube steel, angles, plate steel and metal decking. Altogether, about 10,000 pieces of steel will go into the above-ground portion of the 1.3-million-square-foot facility.

The structural steel framing is a separate phase of the project than the pile driving that finished early last year. More that 12,680 tons -- 48 miles of pile -- have been driven up to 300 feet into the ground to support the structural steel framing.

## **Destiny USA Finishes Driving Piles—June 12, 2008**



Destiny USA and Cianbro announced that they have completed the pile driving operation after a total of 1,400 pile locations, 4,586 welds, and 48 miles of steel.

## **Indoor Air Quality Management System in Place**

Destiny USA has instituted an Indoor Air Quality (IAQ) Management Plan to prevent the indoor air quality problems associated with the typical construction process. Poor control of IAQ during the construction process produces odors, dust, air pollutants, and moisture intrusion and absorption into building materials, which can cause health and comfort concerns to construction workers as well as building occupants. To reduce health risks, Destiny USA has taken extensive measures to manage the IAQ during

the construction process. By effectively managing the IAQ during construction, health and comfort issues that can result from the construction process can be significantly reduced.

As part of Destiny USA's efforts to maintain a superlative IAQ, it monitors all incoming HVAC materials, duct work, heat pumps and air units. Destiny USA assures that the required level of protection is maintained for all materials. For example, all incoming and hanging duct work is covered and sealed with plastic

and pictures are taken daily to track on -going progress. Destiny USA monitors on a constant basis the compliance of all contractors on site with written and photo documentation. All records are maintained in the ConstructWare© software program for easy accessibility and future back-up documentation.

To date, Destiny USA's IAQ Management Plan has been very successful. This is in large part due to contractor's readiness to cooperate, and their understanding of the importance of their work in maintaining a healthy environment for the countless people who will one day visit Destiny USA.



"Working within the Construction IAQ area on the Destiny project has given me the opportunity to interact with experienced professionals while obtaining LEED certification".

Beth Braun- Destiny USA Innovator

"My position in Construction IAQ has been extremely enlightening. The knowledge that I have obtained in this field has equipped me with the tools and understanding of what is required in the area of LEED",





## **Revolutionary Partnership with EPA**



In September of 2006, Destiny USA executed a Memorandum of Understanding (MOU) in partnership with the United States' EPA that includes the use of Green Building Design and a plan to become a model of Environmental Stewardship through the adoption of multiple programs including Energy Star, Smartway and WaterSense. Additionally, Destiny USA is committed to Industrial Materials Recycling, the use of Clean Construction practices and Enhanced Idling Reduction Measures. Although many companies have participated in these programs individually, it is the layering and maximization of multiple programs that make Destiny USA a unique, voluntary and experimental partner.

Since the first pile was driven, Destiny USA has successfully implemented to the highest standards, the requirements of the MOU. The EPA now successfully uses the Destiny USA partnership model to encourage other large construction projects across the country to take a similar approach to environmental stewardship, as accomplished by places like the new home to the Mets.

## **Destiny USA's Biodiesel Journey**

**Syracuse**, **New York** – Destiny USA has used over 249,000 gallons of biodiesel in all of its equipment during the construction of the 1.3 million square foot facility.



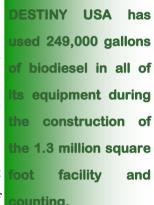
Over a 22 month construction period, Destiny USA's use of clean renewable energy has significantly reduced pollution

associated with diesel construction equipment including Green House Gases (GHG) which has been reduced by 67% and particulate matter which has been reduced by 47%, according to a technical report released by the Environmental Protection Agency (EPA).

Destiny USA's Biodiesel initiative came to fruition through collaborative efforts over the past three years with construction partners, equipment providers, engine manufacturers, and others to use alternative energy sources on site and overcome the B20 limits of the manufacturer's engine warranties. The partners for this initiative have included

Volvo, AP Reale & Sons, Cianbro Corporation, Ascent Technologies, Vantage Equipment, Robert H. Finke & Sons, Inc., Earthwise Excavation, and the EPA.

Destiny USA immediately began using biodiesel when construction commenced in March 2007. After 3,000 gallons of B5, the equipment quickly moved to B20, which is the cut off point for many equipment manufacturers. Equipment operated at the B20 level for around 18,000 gallons then jumped to B50.





Environmental Protection Specialist at Yellowstone National Park, Jim Evanoff stated, "Yellowstone has been using bio-

diesel in all of its equipment for the past 8 years and we are very excited to see the private sector commercializing the use of this environmentally preferable alternative to petroleum-based fuels."

"When the commitment was made to operate Destiny USA free of fossil fuels in April of 2002, I knew it would take considerable expertise and commitment from dozens of people," said Robert J. Congel, Founder of Destiny USA. "All the research and collaboration continues to move us forward with this exciting initiative." [Continued page 6]

### Destiny USA's Biodiesel Journey Cont'

On June 20, 2007, Robert Congel's dream became a reality when Destiny USA's construction equipment was running solely on 100% biodiesel. If you were driving by Syracuse on I-81 on this day you would have seen a large one hundred and seventy ton crane and over 100 different pieces of construction equipment running on B100 for the first time; no black cloud emissions and no foul diesel fumes.

Destiny USA continues to prove the viability of using B100 in all types of equipment and continues to educate and challenge other developers in New York and around the country to adopt similar environmentally friendly approaches.



The Destiny USA's Biodiesel initiative came to fruition through collaborative efforts over the past three years with construction partners, equipment providers, engine manufacturers, and others to use alternative energy sources on site.

## **Green Parking**



On August 29, 2007, 60 "Green Parking" spaces were created at Carousel Center. The parking spaces are allocated to guests who choose to drive fuel efficient and low

emitting vehicles according to a list of over 300 qualifying vehicles from the American Coalition for an Energy Efficient Economy (ACEEE). The parking spaces are conveniently located near every entrance, to create awareness of environmentally friendly vehicles, and to reward consumers who are "living green".

Uniquely each Destiny USA "Green Parking" sign is created out of Polyboard, according to newcityresources.com's website polyboard is a 100% environmentally friendly product made from post industrial recycled polymer, which contain product pieces such as plastic from scrap material as a result of the diaper manufacturing process, sawdust, paper, etc. and can be constantly reused and recycled; the use of polyboard not only eliminates the highly polluting plastic waste, but saves countless trees to maintain the ecological balance of nature.



## Raising the Bar for Construction Waste Recycling

Destiny USA has committed to divert 95% of all its construction waste from landfills. The construction industry average for landfill diversion is 40%. To date, Destiny USA has diverted over 6,143 tons of construction debris from going to local landfills. After 22 months of construction, Destiny USA has maintained its target goal of diverting 95% of all its construction debris from landfills. As one of the more significant construction projects in the country, Destiny USA has made a conscious decision to set a new standard in construction waste management that will inspire other projects to keep construction debris from going to landfills. According to the Environmental Protection Agency (EPA), over 136 million tons of construction related debris is produced annually.



To date, Destiny USA has diverted over 6,143 tons of construction debris from going to local landfills.

## Reinvesting In Regional Economy -\$12 million +

Destiny USA has purchased over \$12 million dollars worth of goods from the region and that figure will only climb as construction ensues on Destiny USA. Working with LEED standards and Destiny USA's commitment to eco-

nomic growth for the region, building materials are purchased within a 500 mile radius of the Destiny USA facility whenever available. The stringent definition of "regional products" from the US Green Building Council's LEED standard means that the products must be extracted, manufactured and processed within the regional limits.

#### HOW DOES THIS HELP CENTRAL NEW YORK?



Regional Economic Activity

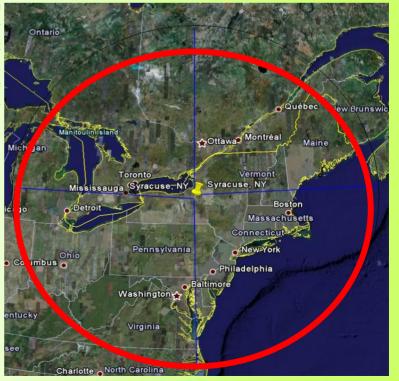


**Employment** 

**Transportation Costs** 



- Attracts Businesses
- Expands Local Markets
- Attracts New Markets to the Region



## **Gone Paperless!**

On April 4, 2008, after months of preparation, Destiny USA formally adopted a *Paperless Initiative Policy*. The policy mandates that tasks previously performed on paper are now done in an electronic manner unless required by law. The most unique application of our paperless initiative applied to our construction site where technology enabled mobile electronic access to the most current construction drawings. Construction site supervisors carry specially designed laptops instead of hard copies of construction drawings and an onsite mobile kiosk allows collaborative viewing of construction drawings. This Paperless Initiative Policy lessened Destiny USA's effect on the environment, generates cost-savings from decreasing supplies and time-savings from implementing more efficient technology enabled processes.

#### **Old way**

Federal Express:

- ♦ Call the dispatcher to notify them of a letter package pickup (time)
- ♦ Van uses fuel to drive to Carousel Center to pick up the letter package (environmental impact)
- ♦ Van uses fuel to drive package back to Federal Express location (environmental impact)
- ◆ Package goes onto a plane (which uses fuel) to deliver package to Federal Express hub location (environmental impact)
- ◆ Package goes onto a plane (which uses fuel) for final destination to ending address (environmental impact)

<u>New Way</u> - with our Paperless Initiative: Now letter is sent electronically via email/ computer (less time/no cost/no environmental impact)

### Old way

Purchasing of paper from vendor:

- Call and order paper from vendor (time)
- ◆ Fuel used for delivery truck to deliver paper to site from vendor location environmental impact)

<u>New Way</u>... with our Paperless Initiative: No ordering of paper (no time/ no cost/no environmental impact)

#### Old way...

- Previously done on paper, now electronically:
- ◆ Timesheets (75 employees) x 52 weeks per year = 3,900 timesheets
- ◆ Expense reports (30 employees x 2 pages 52 weeks per year = **3,120** expense reports
- ◆ Invoicing (generates average of 14,092 invoice copies per year)

New Way- with our Paperless Initiative: All is done electronically via email/computer (no time/no cost/no environmental impact)







## **Destiny USA "GreenLights"**

**EPA/Destiny MOU Partnership-**

**Biodiesel Initiative** 

**Biodiesel Policy & Idle Reduction** 

**Exemplary Construction WM** 

Fly Ash & Bottom Ash

**Carousel Green Power** 

**Regional Project Materials** 

**Recycled Materials** 

**Award** 

**Paperless** 

Is being used as a model throughout the country

Over 240,000 gallons of biodiesel replaced pollution #2 diesel.

Policies have been adopted and shared national, internationally

95% of all C&D 6,660 tons of diverted from landfills and offset 2,591 tons of CO2 pollution

Using 30% of fly and bottom ash preserved 8,075 tons of natural resources normally used in concrete production.

This purchase offsets 12,495 tons of CO2 pollution annually

Over \$12,000,000 were extracted, manufactured and processed regionally

\$25,000,000 have been used in construction to date

**EPA Environmental Quality Award, Greening USA Green Advocacy Award for Green Construction and Outreach** 

Destiny USA job site takes on paperless construction April 4, 2008

### **Destiny USA Awards**

### 2008 Environmental Quality Award

The Environmental Quality Award is the highest recognition presented to the public by the EPA. Award recipients come from all sectors of our community, including not-for-profit, environmental groups, community groups, individual citizens, environmental educators, business organizations and members of the news media which have demonstrated an outstanding commitment to protecting an enhancing environmental quality in our region.

#### **Greening USA-**

GreeningUSA advocates sustainable communities to the benefit of local economies and environments. In April 2008, the organization presented Destiny USA with the Community Advocacy Award for educational efforts surrounding our green construction practices.





## **Destiny USA's Community Outreach**

Destiny USA is committed to sharing with the community all aspects of our green building and green initiative efforts. We pride ourselves on being a living laboratory where we share our successes and failures, innovations and research discoveries. Over the past 12 months Destiny USA was devoted to sharing our green initiatives to the local community, national and international audiences. Below we would like to share with you a list of the Destiny USA Sustainable outreach gatherings:

- ♦ Mary Nelson Youth Day Fair
- ♦ New York State Marketing and Sales Executives
- Brazilian Rotary Entrepreneurs Exchange Group
- Oswego County Green Team- Biodiesel Story Presentation
- ♦ Senator Hillary Clinton Green Upstate New York at the Atrium
- ♦ The National Biodiesel Board Annual Conference, Orlando, Florida
  - Destiny USA Biodiesel Story
- Greater Syracuse Chamber of Commerce- Green project panel discussion
- ◆ Transportation Club of Central New York
- ♦ American Public Works Association
- ♦ Leadership Greater Syracuse
- ♦ General Building Contractors
- ♦ Creative Core Green Team- Sustainable Progress Report
- Sino Trust, China (meeting proceeded with a translator)
- ♦ DecaDestiny –Educational Outreach to High School Seniors
- ♦ Destiny USA Lunch and Learn- sustainable Progress Report
- ♦ Emerging Green Builders of Upstate NY- Green learning session for local colleges
- ◆ FOCUS Greater Syracuse- Green Initiative Update
- ♦ Syracuse Green Meeting City Group- Green Educational Session
- ♦ SUNY Morrisville- curriculum collaboration for Green Collar Jobs



In addition to our presentation and outreach programs Destiny USA participates in many local sustainable and green economic development groups:

- ♦ Corporate Member of the US Green Building Council National Chapter
- Member of the US Green Building Council NY Upstate Chapter
  - o Our Director of Sustainability,
    Melissa Perry served as an officer
    on the Board of Directors
- Syracuse Green Meeting City Group Working to promote Syracuse as a green city to attract sustainable conferences
- Onondaga Community College Sustainable Operations Committee- Advisor to Sustainable Campus Initiatives
- ♦ Clean Communities of Central New Yorkpromotes green transportation
- Creative Core Green Team Promoting green economic growth initiatives for the Central NY Region
- ♦ Creative Core Community Outreach Committee- networking tool for green resources

## **Destiny USA Sun Power to Shine on Syracuse**

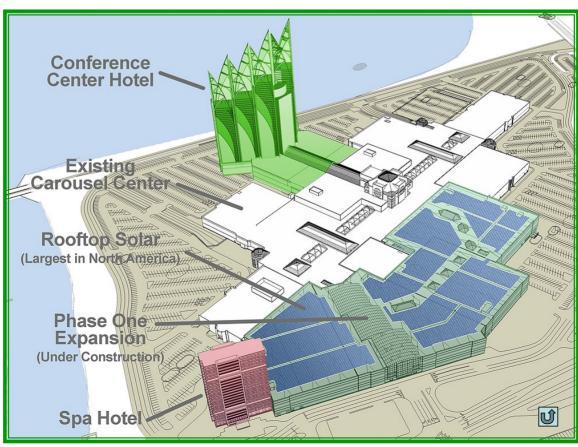
Destiny USA was designed under the premise that it will be a large scale demonstration project for renewable energy and innovative technology solutions that will create new economic opportunities and prove we can be energy independent by constructing and operating without the use of fossil fuels.

As part of Destiny USA's overall commitment to 100% onsite renewable energy, we are planning for and developing a 3.4 mw photovoltaic solar system on the roof of the Destiny expansion site. The project will be comprised of over 17,000 solar panels spread over 400,000 square feet of rooftop, producing approximately 3,500,000 kilowatt hours of electricity, enough to power over 3400 homes.

In just 15 minutes of full sun, we could capture enough solar energy to provide the electrical needs of everyone on the whole planet for a full year

Do you think Syracuse, New York is too cloudy and cold for Solar Power? Let's look to our friends in Germany who have nearly the identical climate challenges as the Northeast United States. Over 400,000 jobs have been created in Germany from the installation and manufacturing related jobs associated with solar power generation. Germany has half the sunlight hours of San Diego yet according to Wikipedia, Germany installed an astounding 100,000 solar systems in 2006, representing 750 MW of solar-electric generation. This follows on the back-to-back record-setting years of 2005 (750 MW) and 2004 (600 MW). Destiny USA strives to be a stimulus for such growth in the United States.

At 3.4 mw, the Destiny solar project will be the largest roof-top solar array in North America. Because it is one of the largest and most innovative commercially sited solar projects in the country, New York State will become an important destination for developers looking for examples of successful sustainability practices in a large scale format. Total project cost is \$22 million, \$10 million of which will be injected into the local economy.



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# The First Phase of Destiny USA "A Consumer Retail Research Lab"

The worlds first Consumer Retail Research Laboratory is currently under construction in Syracuse, New York

To customers, it will be the most amazing retail, dining and entertainment destination they've ever experienced, with unmatched experiences.

To retailers, manufacturers and technology partners, it will be a research and development facility dedicated to reinventing the consumer experience.

This eco-friendly "living lab" will combine innovative design with leading edge technology and will be a test bed for retail brands, services, and innovative concepts.

## **Universal Design in 2009**

On September 8<sup>th</sup> of 2008, Bob Congel Founder of Destiny USA and Global Universal Design (GUDC) Chairman Peter Blanck asserted the commitment to Universal Design and access by signing a Memorandum of Understanding (MOU). The importance of this agreement is significant being that its benefit will serve one in every four Americans. over 54 million Americans have some form of disability. Destiny USA and Syracuse University's Burton Blatt institute have been collaborating to create International Universal Design Standards since 2006 when the first Universal Design American Dream forum took place at Congel's Savannah Dhu Conference Center.

- Increase the usability, safety and health environments, products and systems in response to the diversity of people and abilities
- Accelerating the adoption of Universal Design and access concepts
- Advocate that Universal Design benefits everyone including without limitation women, men and children, people with disabilities and without, and people using different languages.
- Universal Design also broadens markets and increases customer satisfaction because it addresses differences and preferences of all types

Destiny USA and the GUDC share common values and goals, and each stands to through its partnership add new expertise and linkages to organizations, governments and persons with disabilities all over the world to advance the common agenda of full citizenship, economic empowerment and independent living for persons with disabilities.

Over 54 million Americans have some form of disability

